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(54) Title: PREPARATION OF POLYOLEFINS HAVING HIGH MOLECULAR WEIGHTS IN THE PRESENCE OF AN ORGANIC TRANSITION METAL COMPOUND IN A GAS-PHASE FLUIDIZED-BED REACTOR

(57) Abstract: Process for preparing polyolefins having high molecular weights in the presence of a catalyst comprising an organic transition metal compound in a gas-phase fluidized-bed reactor, where the polyolefins prepared have a melt flow rate at 2.16 kg and 190°C in accordance with ISO 1133 of less than 4 g/10 min. According to the present invention, a start-up hase during which a polyolefin having an increased melt flow rate of above 4 g/10 min is produced for a transitional period is provided. In this way, trouble-free start-up of the reactor is ensured even in the case of polymer products having a high molecular weight and a melt flow rate below 4 g/10 min and even when using catalysts based on organic transition metal compounds, in particular metallocene catalysts.